



Use Attainability Analysis

for

WBID 1252 Norris Creek

Submitted by  
BWR

June 1, 2007

Submitted to:  
Missouri Department of Natural Resources  
Division of Environmental Quality  
Water Protection Program

## Field Data Sheets for Recreational Use Stream Surveys

### Data Sheet A - Water Body Identification

SITE 1

#### I. Water Body Information (For water body being surveyed)

Water Body Name (from USGS 7.5' quad):	NORRIS Creek		
Missouri Water Body Identification (WBID) Number:	1252		
8-digit HUC:	10290108	County:	Johnson
Upstream Legal Description (from Table H):	33,44N, 27W		
Downstream Legal Description (from Table H):	Mouth		
Number of sites evaluated	3		
List all sites numbers, listed consequently upstream to downstream:	3, 2, 1		

**Site Locations Map(s):** Attach a map of entire segment with assessment sites clearly labeled. Mark any other items that may be of interest.

#### II. Subsegmentation (fill this section out only in cases where subsegmentation is being proposed)

LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)			
Upstream Coordinates:		Downstream Coordinates:	
UTM X	Y	UTM X	Y
HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)			
Global Positioning System (GPS)		Interpolation	
Static Mode		Topographic Map or DRG	
Dynamic Mode (Kinematic)		Aerial Photograph or DOQQ	
Precise Positioning Service		Satellite Imagery	
Signal Averaging		Interpolation Other	
Real Time Differential Processing			
HORIZONTAL ACCURACY ESTIMATE			
GPS Data Quality		Interpolation Data Quality	
FOM	± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____	
EPE	± 26 Feet or ± _____ Meters		
PDOP		± _____ Feet or ± _____ Meters	

#### III. Discharger Facility Information (list all permitted dischargers on the stream)

Discharger Facility Name(s):	Chilhowee Municipal WWTF
Discharger Permit Number(s):	MO00096091

#### IV. UAA Surveyor (please print legibly)

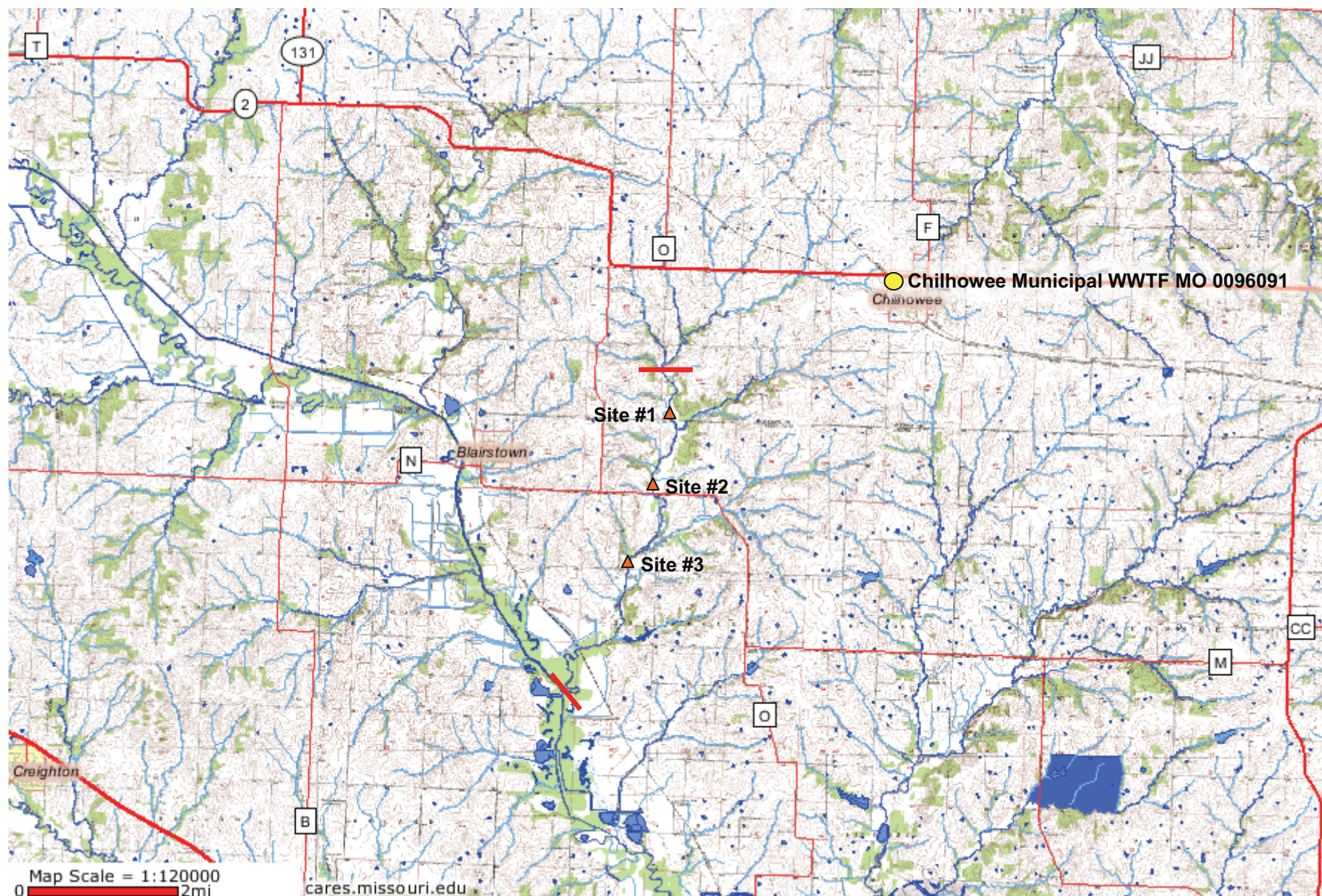
Name of Surveyor	Alan Mitchell	Telephone Number:	
Organization/Employer:	EAE		
Position:	Team Leader		

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Signed: Alan Mitchell

Date: May 21, 2007





Norris Creek  
WBID #1252





WBID# 1252  
 Site# 1

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
 (must be completed for each site)

Date & Time: <u>12:30pm 5/21/2007</u>	Site Location Description (e.g., road crossing): <u>SW 1300th RD / CR NW 1400 (JOHNSON/HENRY CO. LINE) BRIDGE CROSSING</u>
Personnel (Data Collectors): <u>Alan Mitchell Alex</u>	
Current Weather Conditions: <u>Clear</u>	Facility Name: <u>Chilhowee Municipal WWTF</u>
Weather Conditions for Past 10 days: <u>Clear</u>	Permit Number: <u>MD 0096091</u>
Drought Conditions?: No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Locations:**

<b>LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)</b>	
Site GPS Coordinates: UTM X: <u>9391829°W</u>	Y: <u>3854982°N</u>
<b>HORIZONTAL COLLECTION METHOD (Indicate the method used to determine the locational data.)</b>	
<b>Global Positioning System (GPS)</b>	<b>Interpolation</b>
Static Mode	Topographic Map or DRG
Dynamic Mode (Kinematic)	Aerial Photograph or DOQQ
Precise Positioning Service	Satellite Imagery
Signal Averaging	Interpolation Other
Real Time Differential Processing	
<b>HORIZONTAL ACCURACY ESTIMATE</b>	
<b>GPS Data Quality</b>	<b>Interpolation Data Quality</b>
FOM ± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± _____ Meters
EPE ± _____ Feet or ± _____ Meters	
PDOP	

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>15 &amp; 16</u>		<u>17 &amp; 18</u>			

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:



\* Page Two – Data Sheet B for WBID # 1252:  
Stream Morphology:

70 Channel Feature  
SITE 1  
100% Rur

Upstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No

If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN	0	10	100	0.8	>1.0
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No

If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN	0	10	100	0.8	>1.0
POOL					

Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	10	% Silt	90	% Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach any additional comments () to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: Glenn D. Mitchell Date of Survey: May 21, 2007  
Organization: E4E Inc Position: Env. Engr



WBID 1252

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

SITE 1

	Distance from Stream edge	Depth	Rank	Assigned Rank (Run, Riffle, or Pool))	Sorted depth
TA					
1	Wetted width =	<0.1		1	
2	9.5 m	0.3		2	
3	0.9	0.3		3	DO = 8.24 ppm
4		0.3		4	90.4 %
5		0.2		5	19.2 °C
6		0.2		6	
7		0.3		7	
8		0.4		8	
9		0.4		9	
10		0.1		10	
TB					
1	Wetted Width	0.1		11	DO
2	7.5	0.4		12	8.10 PPM
3	Interval	0.4		13	86.0 %
4	0.7	0.4		14	18.8 °C
5		0.5		15	
6		0.5		16	RUN
7		0.5		17	
8		0.4		18	
9		0.2		19	
10		<0.1		20	
TC					
1	Wetted Width	0.1		21	DO
2	5.5	0.4		22	8.22 PPM
3	Interval	0.6		23	88.3 %
4	0.5	0.6		24	18.7 °C
5		0.6		25	
6		0.5		26	RUN
7		0.6		.	
8		0.5		.	
9		0.5		.	
10		<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Harold Mitchell Date: May 21, 2008

Organization: EAC Inc Position: Env. Eng



S

WB/D 1252 Site 1

## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>D</sub>	1 Wetted Width	<0.1		1 DO	
	2 9.0	0.4		2 8.06	PPM
	3 Interval	0.8		3 87.2	%
	4 0.7	0.8		4 18.4	°C
	5	0.8		5	
	6	0.8		6	
	7	0.8		7	
	8	0.6		8	
	9	0.4		9	
	10	0.1		10	
T <sub>E</sub>	1 Wetted Width	<0.1		11 DO	
	2 9.0 m	0.4		12 7.97	PPM
	3 Interval	0.6		13 85.5	%
	4 0.9 m	0.5		14 18.6	°C
	5	0.5		15	
	6	0.5		16	
	7	0.6		17	
	8	0.5		18	
	9	0.4		19	
	10	<0.1		20	
T <sub>F</sub>	1 Wetted Width	0.1		21 7.75	PPM
	2 9.0 m	0.6		22 81.6	%
	3 Interval	0.7		23 18.0	°C
	4 0.9 m	0.7		24	
	5	0.8		25	
	6	0.7		26	
	7	0.7		.	
	8	0.7		.	
	9	0.5		.	
	10	<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: David Mitchell Date: May 21, 2007

Organization: EAE Inc. Position: Env. Engr.



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Site 1

Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>G</sub>	Wetted Width	0.1		1 DO	
	8.0	0.4		2 <del>7.77</del> PPM 7.56	
	Interval	0.4		3 <del>7.77</del> PPM 79.7	
	0.7	0.5		4 18.4 °C	
		0.6		5	
		0.6		6	
		0.5		7	
		0.5		8	
		0.4		9	
		<0.1		10	
T <sub>H</sub>	Wetted Width	0.1		11 DO	
	7.0	0.4		12 7.75 PPM	
	Interval	0.4		13 81.9 %	
	0.7	0.3		14 18.1 °C	
		0.3		15	
		0.3		16	
		0.3		17	
		0.3		18	
		0.3		19	
		<0.1		20	
T <sub>I</sub>	Wetted Width	0.1		21 DO	
	8.5	0.6		22 7.33 PPM	
	Interval	0.7		23 76.6 %	
	0.8	0.8		24 19.8 °C	
		0.7		25	
		0.7		26	
		0.8		.	
		0.7		.	
		0.4		.	
		<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Alan De Witt Date: May 21, 2007

Organization: EAC, Inc Position: Env. Engr



5

WBID 1252 site 1

## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
1	Wetted Width	0.8		1	DO
2	8.0	0.8		2	<del>7.8</del> 7.8 FFW
3	Interval	1.0		3	<del>8.1</del> 78.5 %
4	0.8	>1.0		4	17.6 °C
5		>1.0		5	
6		>1.0		6	RUN
7		21.0		7	
8		0.9		8	
9		0.8		9	
10		<0.1		10	
1	Wetted Width	<0.1		11	DO
2	8.0 m	0.4		12	7.67 FFW
3	Interval	0.6		13	81.1 %
4	0.8 m	0.6		14	17.6 °C
5		0.6		15	
6		0.9		16	RUN
7		0.9		17	
8		0.7		18	
9		0.6		19	
10		<0.1		20	
				21	
				22	
				23	
				24	
				25	
				26	
				.	
				.	
				.	
				n	
				.	
				.	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Chris. Hatala

Date: May 21, 2007

Organization: EAE, Inc.

Position: Env. Eng.



WBID# 1252  
Site# 2

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
(must be completed for each site)

Date & Time: <u>2:00 pm</u>	Site Location Description (e.g., road crossing): <u>BRIDGE CROSSING @ HWY N</u>
Personnel (Data Collectors): <u>Alan Mitchell</u> <u>Alex Bantlett</u>	
Current Weather Conditions: <u>Clear</u>	Facility Name: <u>Chilhowee Municipal WWTF</u>
Weather Conditions for Past 10 days: <u>Clear</u>	Permit Number: <u>MD 0096091</u>
Drought Conditions?: No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Locations:**

<b>LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)</b>	
Site GPS Coordinates: UTM X: <u>93.92432°W</u>	Y: <u>38.53552°N</u>
<b>HORIZONTAL COLLECTION METHOD</b> (Indicate the method used to determine the locational data.)	
<b>Global Positioning System (GPS)</b>	<b>Interpolation</b>
Static Mode	Topographic Map or DRG
Dynamic Mode (Kinematic)	Aerial Photograph or DOQQ
Precise Positioning Service	Satellite Imagery
Signal Averaging	Interpolation Other
Real Time Differential Processing	
<b>HORIZONTAL ACCURACY ESTIMATE</b>	
<b>GPS Data Quality</b>	<b>Interpolation Data Quality</b>
FOM ± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± _____ Meters
EPE ± _____ Feet or ± _____ Meters	
PDOP	

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>21422</u>		<u>19420</u>			

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments:

No sign of human use.

Q.W.M. 5/21/07



70 Channel Feature  
 RUN = 100

\* Page Two – Data Sheet B for WBID # 1252 : # 2  
 Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No  
 If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Downstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No  
 If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL					

Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	100 % Mud/Clay	% Bedrock
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Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach any additional comments () to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: [Signature] Date of Survey: May 21, 2007  
 Organization: EAE, Inc. Position: Env. Eng.



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1052 #2

	Distance from Stream edge	Depth	Rank	Assigned Rank (Riffle, Run, or Pool?)	Sorted depth
T <sub>A</sub>	1 Wetted width =	0.6		1	
	2 8.5 m	0.6		2	
	3	0.7		3	
	4 Interval	0.6		4	DO = 6.75 ppm,
	5 0.8	0.6		5	73.5 %
	6	0.6		6	18.5 °C
	7	0.6		7	
	8	0.5		8	RUN
	9	0.5		9	
	10	<0.1		10	
T <sub>B</sub>	1 Wetted Width	0.1		11 DO	
	2 9.0 m	0.7		12 6.75	ppm
	3 Interval	0.9		13 73.4	%
	4 0.9 m	0.9		14 18.8	°C
	5	0.9		15	
	6	0.8		16	RUN
	7	0.5		17	
	8	0.3		18	
	9	0.2		19	
	10	<0.1		20	
T <sub>C</sub>	1 Wetted Width	0.1		21 DO	
	2 6.5 m	0.7		22 6.63	ppm
	3 Interval	0.8		23 71.2	%
	4 m	0.7		24 18.5	°C
	5	0.7		25	RUN
	6	0.6		26	
	7	0.5		.	
	8	0.4		.	
	9	0.3		.	
	10	<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: John G. WhitelyDate: May 21, 2007Organization: EAE Inc.Position: Env. Eng.



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1252 #2

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>D</sub>	Wetted Width	0.1		1 DO	
	7.0 m	0.7		2 7.10	PPM
	Interval	0.6		3 75.9	%
	0.7 m	0.8		4 18.8	OC
		0.8		5 19 UN	
		0.7		6	
		0.8		7	
		0.8		8	
		0.6		9	
		<0.1		10	
T <sub>E</sub>	Wetted Width	0.1		11 DO	
	7.0 m	0.6		12 7.25	PPM
	Interval	0.8		13 78.1	%
	0.7 m	0.8		14 18.9	OC
		0.8		15	
		0.9		16 RUN	
		0.9		17	
		0.7		18	
		0.3		19	
		<0.1		20	
T <sub>F</sub>	Wetted Width	<0.1		21 DO	
	6.0 m	0.6		22 7.37	PPM
	Interval	0.8		23 80.1	%
	0.6 m	0.9		24 19.1	OC
		0.9		25	
		0.8		26 RUN	
		0.6		.	
		0.5		.	
		0.3		.	
		<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: David W. MitchellDate: May 21, 2007Organization: EAC, Inc.Position: Env. Eng.



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1252 #9

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>G</sub>	Wetted Width	<0.1		1 DO	
	9.5 m	0.5		2 7.40	PPM
	Interval	0.6		3 82.3	%
	0.9	0.5		4 19.2	°C
		0.3		5 RUN	
		0.2		6	
		0.2		7	
		0.4		8	
		0.2		9	
		0.1		10	
T <sub>H</sub>	Wetted Width	0.1		11 DO	
	9.5 m	0.3		12 7.68	PPM
	Interval	0.1		13 83.1	%
	0.9 m	<0.1		14 19.4°C	°C
		0.1		15 RUN	
		0.1		16	
		0.2		17	
		0.3		18	
		0.4		19	
		<0.1		20	
T <sub>I</sub>	Wetted Width	<0.1		21 DO 7.49	PPM
	8.5 m	0.1		22 82.1	%
	Interval	0.2		23 19.3	°C
	m	0.2		24 RUN	
		0.3		25	
		0.4		26	
		0.4		.	
		0.5		.	
		0.5		.	
		<0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: John D. WhitellDate: May 21, 2007Organization: EAE, IncPosition: Env. Engr



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

1252 #2

Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
1 Wetted Width	<0.1		1 DO	
2 8.0 m	0.4		2 7.67	ppm
3	0.6		3 84.5	%
4	0.6		4 19.5	°C
5	0.6		5	
6	0.7		6 RUN	
7	0.8		7	
8	0.6		8	
9	0.4		9	
10	<0.1		10	
1 Wetted Width	0.1		11 DO	
2 8.5 m	0.6		12 7.72	ppm
3	0.9		13 81.8	%
4	0.9		14 19.3	°C
5	0.9		15	
6	0.9		16 RUN	
7	0.8		17	
8	0.7		18	
9	0.4		19	
10	<0.1		20	
			21	
			22	
			23	
			24	
			25	
			26	
			.	
			.	
			.	
			n	
			.	
			.	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: David MitchellDate: May 21, 2007Organization: EAE, Inc.Position: Env. Eng.



WBID# 1252  
 Site# 3

**Field Data Sheets for Recreational Use Stream Surveys**  
**Data Sheet B - Site Characterization**  
 (must be completed for each site)

Date & Time: <u>2:00 pm 5/21/2007</u>	Site Location Description (e.g., road crossing): <u>BRIDGE CROSSING @ CR NW 1200</u>
Personnel (Data Collectors): <u>Alan Mitchell</u> <u>Alex Bartlett</u>	Facility Name: <u>Chilhowee Municipal WMTF</u>
Current Weather Conditions: <u>Clear</u>	Permit Number: <u>MO 009,091</u>
Weather Conditions for Past 10 days: <u>Clear</u>	
Drought Conditions?: No drought <input checked="" type="checkbox"/> ; Phase I <input type="checkbox"/> ; Phase II <input type="checkbox"/> ; Phase III <input type="checkbox"/> ; Phase IV <input type="checkbox"/> ; Unknown <input type="checkbox"/>	

**Site Locations:**

<b>LOCATION COORDINATES (UNIVERSAL TRANSVERSE MERCATOR PROJECTION, IN METERS)</b>	
Site GPS Coordinates: UTM X: <u>93.92432°W</u>	Y: <u>38.53552°N</u>
<b>HORIZONTAL COLLECTION METHOD</b> (Indicate the method used to determine the locational data.)	
<b>Global Positioning System (GPS)</b>	<b>Interpolation</b>
Static Mode	Topographic Map or DRG
Dynamic Mode (Kinematic)	Aerial Photograph or DOQQ
Precise Positioning Service	Satellite Imagery
Signal Averaging	Interpolation Other
Real Time Differential Processing	
<b>HORIZONTAL ACCURACY ESTIMATE</b>	
<b>GPS Data Quality</b>	<b>Interpolation Data Quality</b>
FOM ± _____ Meters	Source Map Scale: 1:24,000 1:100,000 Other _____ ± _____ Feet or ± _____ Meters
EPE ± _____ Feet or ± _____ Meters	
PDOP	

**Photos:**

Upstream Photos		Downstream Photos		Other Photos	
Photo ID#	Photo Purpose	Photo ID#	Photo Purpose	Photo ID#	Photo Purpose
<u>23 &amp; 24</u>		<u>25 &amp; 26</u>			

**Uses Observed\*:** (Uses actually observed at time of survey.)

<input type="checkbox"/> Swimming	<input type="checkbox"/> Skin diving	<input type="checkbox"/> SCUBA diving	<input type="checkbox"/> Tubing	<input type="checkbox"/> Water skiing
<input type="checkbox"/> Wind surfing	<input type="checkbox"/> Kayaking	<input type="checkbox"/> Boating	<input type="checkbox"/> Wading	<input type="checkbox"/> Rafting
<input type="checkbox"/> Hunting	<input type="checkbox"/> Trapping	<input type="checkbox"/> Fishing	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Describe: (Include number of individuals recreating, photo-documentation of evidence of recreational uses, etc. Use *Data Sheet D- Recreational Use Interview* when conducting interviews.)

**Surrounding Conditions\*:** (Mark all that promote or impede recreational uses. Attach photos of evidence or unusual items of interest.)

<input type="checkbox"/> City/county parks	<input type="checkbox"/> Playgrounds	<input type="checkbox"/> MDC conservation lands	<input type="checkbox"/> Urban areas	<input type="checkbox"/> Campgrounds
<input type="checkbox"/> Boating accesses	<input type="checkbox"/> State parks	<input type="checkbox"/> National forests	<input type="checkbox"/> Nature trails	<input type="checkbox"/> Stairs/walkway
<input type="checkbox"/> No trespass sign	<input type="checkbox"/> Fence	<input type="checkbox"/> Steep slopes	<input checked="" type="checkbox"/> None of the above	<input type="checkbox"/> Other:

Comments:

**Indications of Human Use\*:** (attach photos)

<input type="checkbox"/> Roads	<input type="checkbox"/> Rope swings	<input type="checkbox"/> Foot paths/prints	<input type="checkbox"/> Dock/platform	<input type="checkbox"/> Livestock Watering	<input type="checkbox"/> RV / ATV Tracks
<input type="checkbox"/> Camping Sites	<input type="checkbox"/> Fire pit/ring	<input type="checkbox"/> NPDES Discharge	<input type="checkbox"/> Fishing Tackle	<input type="checkbox"/> Other:	

Comments: No sign of human use. MO-M-5/21/2007



0% Channel Feature  
100% Run Site 3

\* Page Two – Data Sheet B for WBID # 1252 :  
Stream Morphology:

Upstream View's Physical Dimensions: Is there any water present at this view? ☒ Yes ☐ No

If so, is there an obvious current? ☒ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL	①	15	100	0.8	>1.0

Downstream View's Physical Dimensions: Is there any water present at this view? ☐ Yes ☐ No

If so, is there an obvious current? ☐ Yes ☐ No

Select one of the following channel features:

Channel Feature	Distance from access (m)	Width (m)	Length (m)	Median Depth (m)	Max. Depth (m)
RIFFLE					
RUN					
POOL	0	15	50	0.8	>1.0

Substrate\*: (These values should add up to 100%.)

% Cobble	% Gravel	% Sand	% Silt	100 % Mud/Clay	% Bedrock
----------	----------	--------	--------	----------------	-----------

Aquatic Vegetation\*: (Note amount of vegetation or algal growth at the assessment site)

--

Water Characteristics\*: (Mark all that apply.)

Odor:	<input type="checkbox"/> Sewage	<input type="checkbox"/> Musky	<input type="checkbox"/> Chemical	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Color:	<input type="checkbox"/> Clear	<input checked="" type="checkbox"/> Green	<input type="checkbox"/> Gray	<input type="checkbox"/> Milky	<input type="checkbox"/> Other:
Bottom Deposit:	<input type="checkbox"/> Sludge	<input type="checkbox"/> Solids	<input type="checkbox"/> Fine sediments	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:
Surface Deposit:	<input type="checkbox"/> Oil	<input type="checkbox"/> Scum	<input type="checkbox"/> Foam	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Other:

Comments: Please attach any additional comments () to this form.

\*This information is not to be used solely for removal of a recreational use designation but rather is to provide a more comprehensive understanding of water conditions. Consequently, this information is not intended to directly influence a decision on the recreation use analysis but may point to conditions that need further analysis or that effect another use.

Please verify that you have completed all sections, checked all applicable boxes and that everything is complete.

Surveyor's Signature: David Mitchell Date of Survey: May 21, 2007

Organization: EAE Inc. Position: Env. Engr



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WBID 1252 SITE 3

## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank (Riffle, Run, or Pool?)	Sorted depth
T <sub>A</sub>	1 Wetted width =	0.1		1	
	2 10.0 m	<del>0.8</del>		2	
	3	> 1.0		3	
	4 Interval	> 1.0		4	
	5 1.0 m	> 1.0		5	D.V. = $\frac{3.66}{2.0} \text{ ppm}$
	6	0.8		6	$\frac{2.0}{2.0} \%$
	7	0.9		7	21.0°C
	8	0.8		8	
	9	0.4		9	RUN
	10	0.1		10	
T <sub>B</sub>	1 Wetted Width	0.1		11 DO	
	2 12.0 m	0.3		12 <del>4.0</del>	ppm
	3 Interval	0.6		13 <del>4.0</del>	%
	4 1.2 m	0.7		14 <del>20.9</del>	°C
	5	0.8		15	
	6	0.9		16	
	7	1.0		17 RUN	
	8	1.0		18	
	9	0.9		19	
	10	0.6		20	
T <sub>C</sub>	1 Wetted Width	0.1		21 DO	
	2 12.0 m	0.7		22 3.02	ppm
	3 Interval	> 1.0		23 30.8	%
	4 1.2 m	> 1.0		24 19.8	°C
	5	> 1.0		25	
	6	> 1.0		26	
	7	> 1.0		27 RUN	
	8	> 1.0		28	
	9	> 1.0		29	
	10	> 1.0		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shawn H. H. H. H. Date: May 21, 2007

Organization: EAE, Inc. Position: Env. Eng.



Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>D</sub>	1 Wetted Width	0.1		1 DO	
	2 10.0 m	0.7		2 4.12	PPM
	3 Interval	0.8		3 45.8	%
	4 1.0 m	0.9		4 20.8	°C
	5	0.7		5	
	6	0.7		6	
	7	0.6		7 RUN	
	8	0.5		8	
	9	0.3		9	
	10	0.1		10	
T <sub>E</sub>	1 Wetted Width	> 1.0		11 DO	
	2 10.0 m	> 1.0		12 3.54	PPM
	3 Interval	> 1.0		13 39.0	%
	4 1.0 m	> 1.0		14 18.9	°C
	5	> 1.0		15	
	6	> 1.0		16	
	7	> 1.0		17 RUN	
	8	0.9		18	
	9	0.5		19	
	10	0.1		20	
T <sub>F</sub>	1 Wetted Width	0.2		21 DO	
	2 10.0	> 1.0		22 3.52	PPM
	3 Inter	> 1.0		23 37.8	%
	4	> 1.0		24 18.7	°C
	5	> 1.0		25	
	6	> 1.0		26	
	7	> 1.0		RUN	
	8	0.9			
	9	0.6			
	10	0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: [Signature] Date: May 21, 2007

Organization: EAE, Inc. Position: Env. Engr



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>G</sub>	Wetted Width	0.1		1 DO	
	10.0 m	0.5		2 3.96	PPM
		0.8		3 76.2	%
		0.8		4 18.9	°C
		0.7		5	
		0.6		6	
		0.4		7	
		0.2		8 RUN	
		0.2		9	
		<0.1		10	
T <sub>H</sub>	Wetted Width	<0.1		11 DO	
	10 m	0.4		12 4.40	PPM
	Interval	0.3		13 78.3	%
	1.0 m	0.5		14 19.2	°C
		0.7		15	
		0.5		16	
		0.4		17 RUN	
		0.4		18	
		0.2		19	
		<0.1		20	
T <sub>I</sub>	Wetted Width	<0.1		21 DO	
	11.0 m	0.8		22 4.80	PPM
	Interval	>1.0		23 58.0	%
	1.1 m	>1.0		24 19.0	°C
		0.7		25	
		0.4		26	
		0.5		· RUN	
		0.5		·	
		0.3		·	
		0.1		n	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Shane M. Mitchell Date: May 21, 2007

Organization: EAE, Inc. Position: Env. Eng.



## Data Sheet C – Cross-Sectional Depth Measurements (for estimation of median depth)

	Distance from Stream edge	Depth	Rank	Assigned Rank	Sorted depth
T <sub>J</sub>	Wetted Width	> 1.0		1 DO	
	8.5	> 1.0		2 4.13	FW
		> 1.0		3 44.1	%
		1.0		4 18.9	OC
		0.8		5	
		0.6		6	
		0.3		7 RUN	
		0.3		8	
		0.2		9	
		< 0.1		10	
T <sub>K</sub>	Wetted Width	> 1.0		11 DO	
	8.0	> 1.0		12 4.18	FW
		> 1.0		13 49.2	%
		1.0		14 19.1	OC
		0.9		15	
		0.8		16	
		0.7		17 RUN	
		0.5		18	
		0.4		19	
		< 0.1		20	
				21	
				22	
				23	
				24	
				25	
				26	
				.	
				.	
				.	
				n	
				.	

If there is an odd number of entries find middle rank  $[(n+1)/2]$ . The corresponding sorted value depth to the middle rank is the median depth.

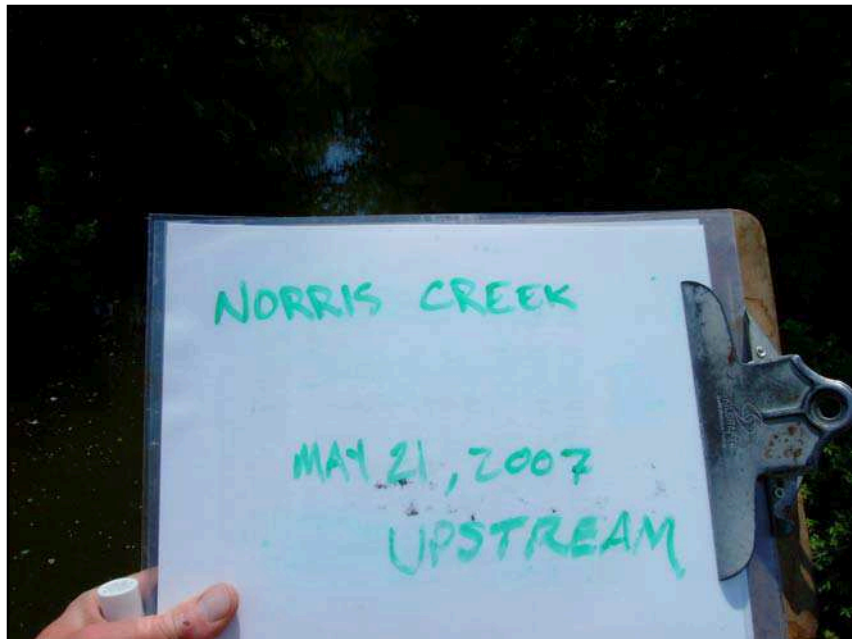
If there is an even number of entries, the median depth corresponds to the arithmetic average of the two depth values surrounding the middle rank.

I, the undersigned, hereby affirm to the best of my knowledge, that all information reported on this UAA datasheet is true and accurate.

Signed: Harold Mitchell Date: May 21, 2007

Organization: EAE, Inc. Position: Env. Engn

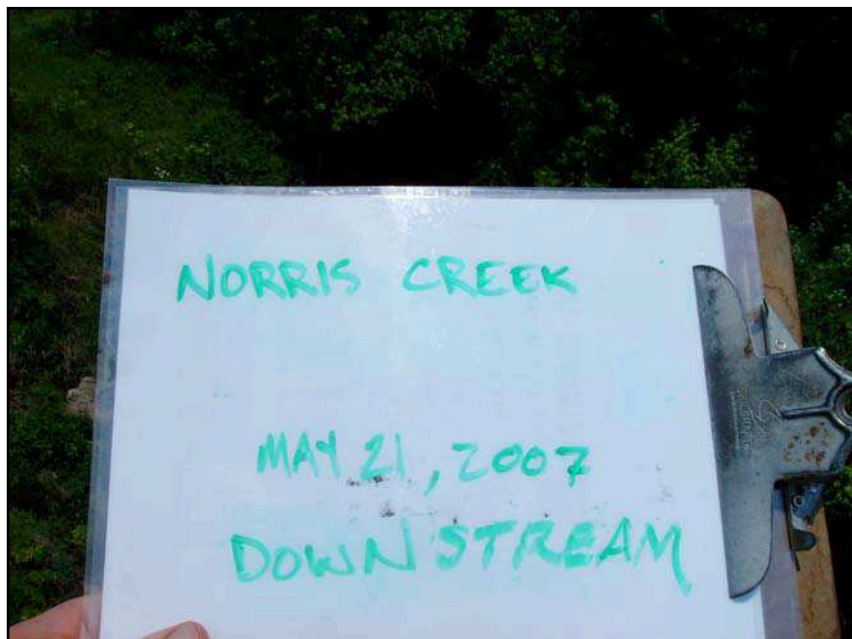




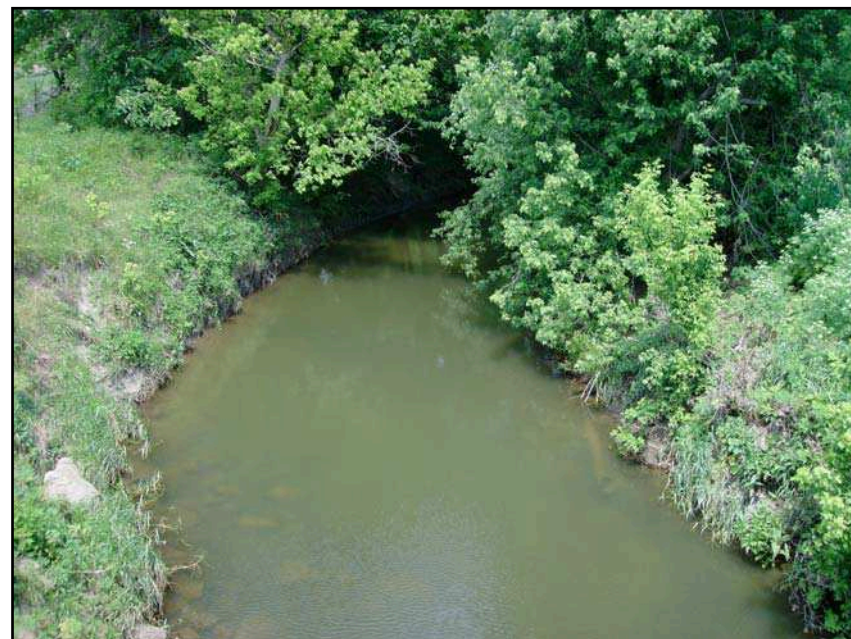
Upstream (Site #1) of Norris Creek.



Upstream (Site #1) of Norris Creek.

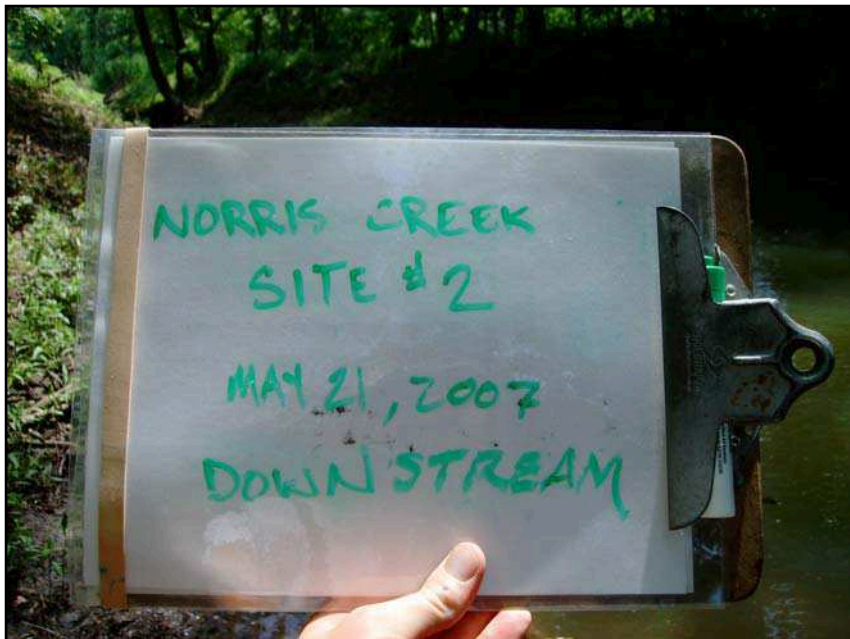


Downstream (Site #1) of Norris Creek.



Downstream (Site #1) of Norris Creek.

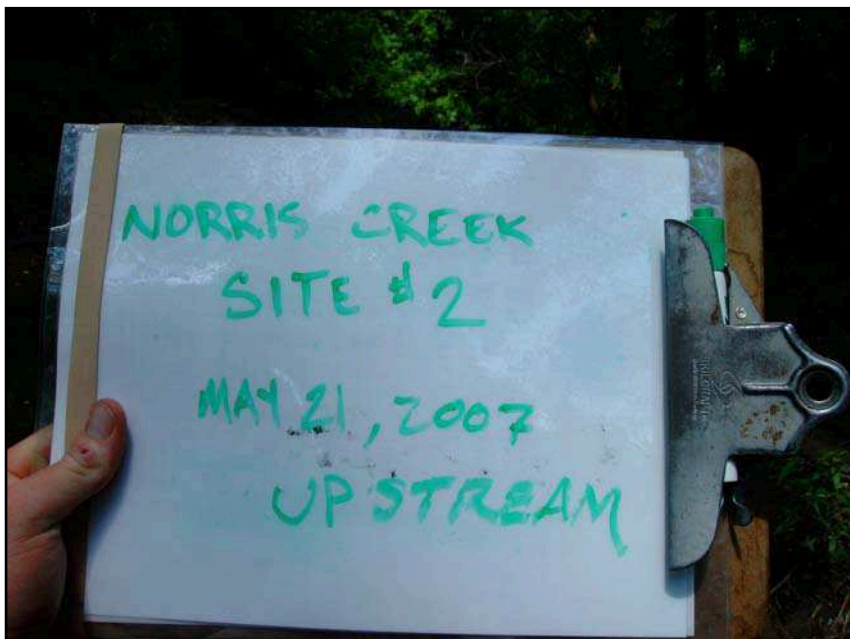




Downstream (Site #2) of Norris Creek.



Downstream (Site #2) of Norris Creek.

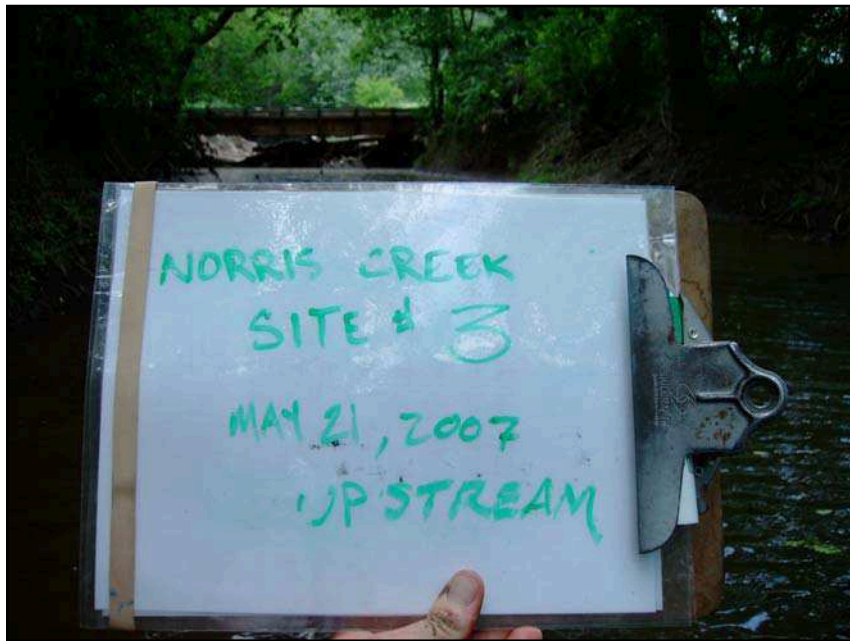


Upstream (Site #2) of Norris Creek.



Upstream (Site #2) of Norris Creek.

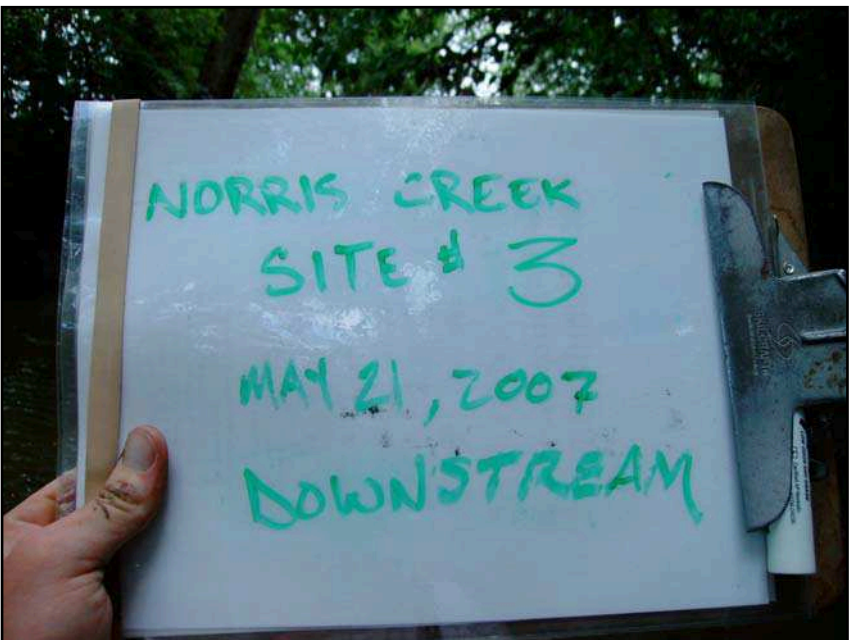




Upstream (Site #3) of Norris Creek.



Upstream (Site #3) of Norris Creek.



Downstream (Site #3) of Norris Creek.



Downstream (Site #3) of Norris Creek.



**Field Data Sheet for Recreational Use Stream Survey**

**Data Sheet D—Recreational Use Interview**

**Stream Name** NORRIS CREEK (**WBID #** 1252)

**I. Introduction**

**Date & Time** (include AM or PM): \_\_\_\_\_

**Interviewed:** ☐ In person ☐ By phone ☐ By mail

(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

**Interviewee selected because** (e.g., house next to stream; standing by stream, etc.) PROPERTY OWNER AT STREAM

**Interviewer introduction to Interviewee:** "My name is \_\_\_\_\_, I work for \_\_\_\_\_ (name of your employer) \_\_\_\_\_, and I am collecting information on how people use \_\_\_\_\_ (name of the stream) \_\_\_\_\_."

**ASK:**

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)

☐ Yes ☐ No If yes, list contact information for the interviewee below:

Legal name: Terry Schmidt

Current mailing address: 843 NW Hwy "N" BLAIRSTOWN, MO 64726

Daytime phone number: (660) 498 3407

E-mail address (optional): \_\_\_\_\_

2.a.) Do you live in this area? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☐ Yes ☐ No

If yes, proceed to "II. Personal Use?".

If no, proceed to Section V.

**II. Personal Use?**

1.) Have you or your family personally used the stream for recreation since November 28, 1975?

☐ Yes ☐ No

If yes, proceed to #3.

If no, proceed to #2.

2.a.) List reasons stream not used.

\_\_\_\_\_  
\_\_\_\_\_

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?



<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:**

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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<b>Secondary Contact Recreation</b>				
Fishing <input type="checkbox"/>	Wading <input type="checkbox"/>	Boating <input type="checkbox"/>	Trapping <input type="checkbox"/>	Other: <input type="checkbox"/> List: _____

**If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:**

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

---



---



---

4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

---



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### **III. Witnessed Use?**

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.

If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### ***Secondary Contact Recreation***

Fishing ☐ Wading ☐ Boating ☐ Trapping ☐ Other: ☐ List: \_\_\_\_\_

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### **IV. Anecdotal Use?**

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

#### ***Whole Body Contact Recreation***

Swimming ☐ Tubing ☐ Snorkeling/Skin Diving ☐ Water Skiing ☐

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



### Secondary Contact Recreation

Fishing ☐ Wading ☐ Boating ☐ Trapping ☐ Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol). \_\_\_\_\_

#### V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☐ Yes ☐ No  
If yes, that person's contact info (name, address, phone, directions?) \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

#### VI. Additional Comments

1.) From the Interviewee: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.) From the Interviewer: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

#### VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?

☐ Yes ☐ No If yes, how (check all that apply):

Workshop? (if so, enter date): \_\_\_\_\_

On-line training seminar? \_\_\_\_\_

Followed Interview Instruction Sheets? \_\_\_\_\_

Other \_\_\_\_\_

Interviewer Information:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Employer (where applicable): \_\_\_\_\_

Interviewer's phone #: \_\_\_\_\_ E-mail: \_\_\_\_\_



**Field Data Sheet for Recreational Use Stream Survey**

**Data Sheet D—Recreational Use Interview**

**Stream Name** NORRIS CREEK (**WBID #** 1252)

**I. Introduction**

**Date & Time** (include AM or PM): \_\_\_\_\_

**Interviewed:** ☐ In person ☐ By phone ☐ By mail

(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

**Interviewee selected because** (e.g., house next to stream; standing by stream, etc.) PROPERTY OWNER AT ACCESS POINT

**Interviewer introduction to Interviewee:** "My name is \_\_\_\_\_, I work for \_\_\_\_\_ (name of your employer) \_\_\_\_\_, and I am collecting information on how people use \_\_\_\_\_ (name of the stream) \_\_\_\_\_."

**ASK:**

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)

☐ Yes ☐ No

If yes, list contact information for the interviewee below:

Legal name: BRUCE YOUNG

Current mailing address: 568 SW 801ST RD HOLDEN MO 64040

Daytime phone number: (816) 850-6764

E-mail address (optional): \_\_\_\_\_

2.a.) Do you live in this area? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☐ Yes ☐ No

If yes, proceed to "II. Personal Use?".

If no, proceed to Section V.

**II. Personal Use?**

1.) Have you or your family personally used the stream for recreation since November 28, 1975?

☐ Yes ☐ No

If yes, proceed to #3.

If no, proceed to #2.

2.a.) List reasons stream not used.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?



<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:**

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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<b>Secondary Contact Recreation</b>				
Fishing <input type="checkbox"/>	Wading <input type="checkbox"/>	Boating <input type="checkbox"/>	Trapping <input type="checkbox"/>	Other: <input type="checkbox"/> List: _____

**If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:**

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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### **III. Witnessed Use?**

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.

If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

Secondary Contact Recreation				
Fishing <input type="checkbox"/>	Wading <input type="checkbox"/>	Boating <input type="checkbox"/>	Trapping <input type="checkbox"/>	Other: <input type="checkbox"/> List:

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

#### IV. Anecdotal Use?

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

Whole Body Contact Recreation			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

### Secondary Contact Recreation

Fishing ☐ Wading ☐ Boating ☐ Trapping ☐ Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol). \_\_\_\_\_

#### V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☐ Yes ☐ No  
If yes, that person's contact info (name, address, phone, directions?) \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

#### VI. Additional Comments

1.) From the Interviewee: \_\_\_\_\_

2.) From the Interviewer: \_\_\_\_\_

#### VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?  
☐ Yes ☐ No If yes, how (check all that apply):

Workshop? (if so, enter date): \_\_\_\_\_

On-line training seminar? \_\_\_\_\_

Followed Interview Instruction Sheets? \_\_\_\_\_

Other \_\_\_\_\_

Interviewer Information:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Employer (where applicable): \_\_\_\_\_

Interviewer's phone #: \_\_\_\_\_

E-mail: \_\_\_\_\_



**Field Data Sheet for Recreational Use Stream Survey**

**Data Sheet D—Recreational Use Interview**

**Stream Name** NORRIS CREEK (**WBID #** 1252)

**I. Introduction**

**Date & Time** (include AM or PM): \_\_\_\_\_

**Interviewed:** ☐ In person ☒ By phone ☐ By mail

(NOTE: If you are an Interviewee filling out this form to mail back to DNR, proceed to Question #1.)

**Interviewee selected because** (e.g., house next to stream; standing by stream, etc.) \_\_\_\_\_  
PROPERTY OWNER AGREEING TO ACCESS

**Interviewer introduction to Interviewee:** "My name is \_\_\_\_\_, I work for \_\_\_\_\_ (name of your employer) \_\_\_\_\_, and I am collecting information on how people use \_\_\_\_\_ (name of the stream) \_\_\_\_\_."

**ASK:**

1.) Are you willing to respond to a survey about this stream? (It will just take a few minutes.)

☐ Yes ☐ No If yes, list contact information for the interviewee below:

Legal name: Termy Jerome

Current mailing address: 1158 NW 90th Rd. Blairstown

Daytime phone number: (660) 498-3558

E-mail address (optional): \_\_\_\_\_

2.a.) Do you live in this area? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

2.b.) If you don't live nearby, are you still familiar with this stream? ☐ Yes ☐ No

If yes, how many years? \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

3.) Are you familiar with this particular stretch of the stream? (show them the map, pointing out local landmarks such as roads, bridges, property lines) ☐ Yes ☐ No

If yes, proceed to "II. Personal Use?".

If no, proceed to Section V.

**II. Personal Use?**

1.) Have you or your family personally used the stream for recreation since November 28, 1975?

☐ Yes ☐ No

If yes, proceed to #3.

If no, proceed to #2.

2.a.) List reasons stream not used.

\_\_\_\_\_  
\_\_\_\_\_

2.b.) Proceed to "III. Witnessed Use?".

3.) How do you use the stream?

<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee (or family) used the stream for WBCR since Nov. 28, 1975, ask:**

4.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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4.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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<b>Secondary Contact Recreation</b>				
Fishing <input type="checkbox"/>	Wading <input type="checkbox"/>	Boating <input type="checkbox"/>	Trapping <input type="checkbox"/>	Other: <input type="checkbox"/> List: _____

**If Interviewee (or family) used the stream for SCR since Nov. 28, 1975, ask:**

4.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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4.d.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

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### **III. Witnessed Use?**

1.) Have you observed others using this stream for recreation since Nov. 28, 1975? ☐ Yes ☐ No

If yes, proceed to #2.

If no, proceed to, "IV. Anecdotal Use?".

2.) What kinds of uses have you witnessed?

<b>Whole Body Contact Recreation</b>			
Swimming <input type="checkbox"/>	Tubing <input type="checkbox"/>	Snorkeling/Skin Diving <input type="checkbox"/>	Water Skiing <input type="checkbox"/>

**If Interviewee witnessed WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

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2.b.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Secondary Contact Recreation**

Fishing ☐ Wading ☐ Boating ☐ Trapping ☐ Other: ☐ List: \_\_\_\_\_

If Interviewee witnessed SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the map* (Seemap requirements in the protocol). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**IV. Anecdotal Use?**

1.) Have you heard about anyone using this stream since Nov. 28, 1975 for recreation – not seen or done yourself, but just heard about it? ☐ Yes ☐ No

If yes, proceed to #2.

If no, thank the individual for taking the time to talk to you and conclude the interview.

2.) What kind of uses have you heard about?

**Whole Body Contact Recreation**

Swimming ☐ Tubing ☐ Snorkeling/Skin Diving ☐ Water Skiing ☐

**If Interviewee heard of WBCR use since Nov. 28, 1975, ask the following questions:**

2.a.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.b.) Where, exactly? Describe specific location *and mark on the map* (See map requirements in the protocol). \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### Secondary Contact Recreation

Fishing ☐ Wading ☐ Boating ☐ Trapping ☐ Other: ☐ List:

If Interviewee heard of SCR use since Nov. 28, 1975, ask the following questions:

2.c.) When did these uses take place (e.g., year(s)?; season?; only after a rain?) and how often (times/year)? \_\_\_\_\_

2.d.) Where, exactly? Describe specific location *and mark on the* (See map requirements in the protocol). \_\_\_\_\_

#### V. Others to Contact?

Can you recommend someone else we could contact that knows the stream? ☐ Yes ☐ No  
If yes, that person's contact info (name, address, phone, directions?) \_\_\_\_\_

If no, thank the individual for taking the time to talk to you and conclude the interview.

#### VI. Additional Comments

1.) From the Interviewee: \_\_\_\_\_

2.) From the Interviewer: \_\_\_\_\_

#### VII. Information on Interviewer

Has interviewer been trained by Missouri DNR to conduct UAA Interviews?  
☐ Yes ☐ No If yes, how (check all that apply):

Workshop? (if so, enter date): \_\_\_\_\_

On-line training seminar? \_\_\_\_\_

Followed Interview Instruction Sheets? \_\_\_\_\_

Other \_\_\_\_\_

Interviewer Information:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Employer (where applicable): \_\_\_\_\_

Interviewer's phone #: \_\_\_\_\_

E-mail: \_\_\_\_\_